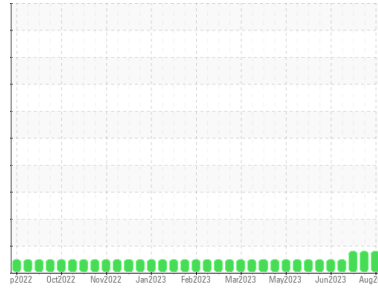




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CAPTIS ENERGY ENG 1

Component
Natural Gas Engine
Fluid
Q8G8 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The tin level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0835681	WC0835630	WC0835627
Sample Date	Client Info		21 Aug 2023	24 Jul 2023	18 Jul 2023
Machine Age	hrs	Client Info	47732	47195	47158
Oil Age	hrs	Client Info	2273	1736	1699
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	13	14	13
Chromium	ppm	ASTM D5185m >5	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >15	4	5	5
Lead	ppm	ASTM D5185m >20	<1	<1	<1
Copper	ppm	ASTM D5185m >15	4	3	3
Tin	ppm	ASTM D5185m >5	▲ 7	▲ 6	▲ 6
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	1	1
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	10	8	3
Calcium	ppm	ASTM D5185m	2518	2495	2813
Phosphorus	ppm	ASTM D5185m	449	463	492
Zinc	ppm	ASTM D5185m	532	526	592
Sulfur	ppm	ASTM D5185m	3181	3183	3628

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >200	46	47	50
Sodium	ppm	ASTM D5185m >20	7	7	8
Potassium	ppm	ASTM D5185m >20	4	3	5

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >2	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	8.2	8.0	8.0
Sulfation	Abs/.1mm	*ASTM D7415 >20	20.2	19.5	19.5

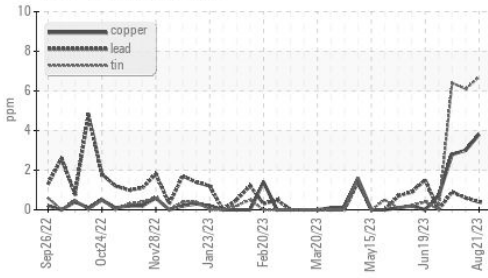
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >20	16.2	15.4	15.4
Acid Number (AN)	mg KOH/g	ASTM D8045	1.48	1.33	1.47
Base Number (BN)	mg KOH/g	ASTM D2896	6.40	6.09	6.41



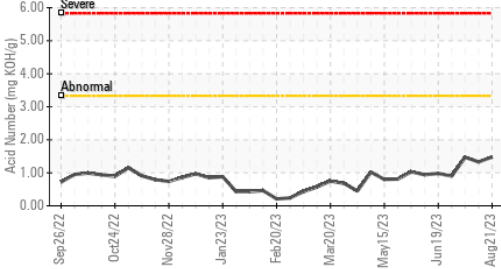
OIL ANALYSIS REPORT

▲ Non-ferrous Metals



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

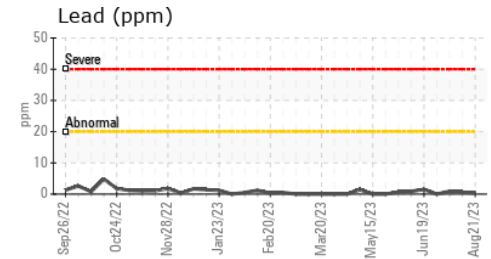
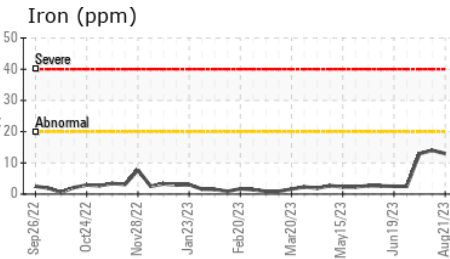
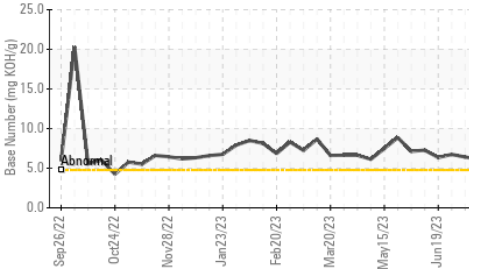
Acid Number



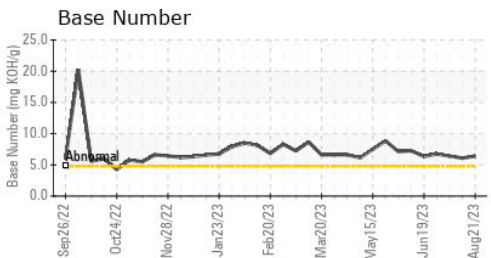
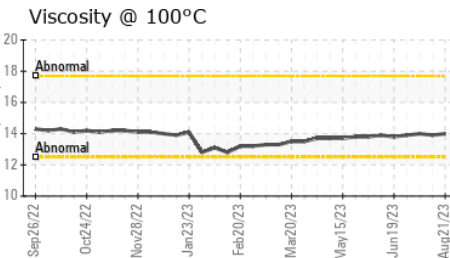
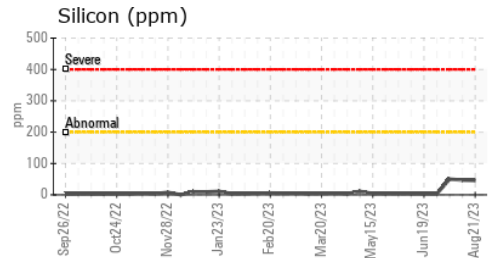
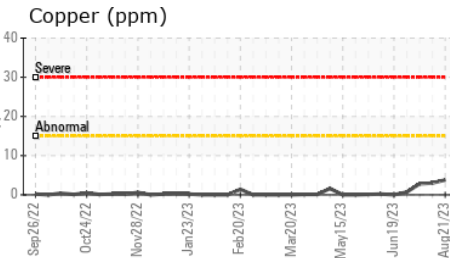
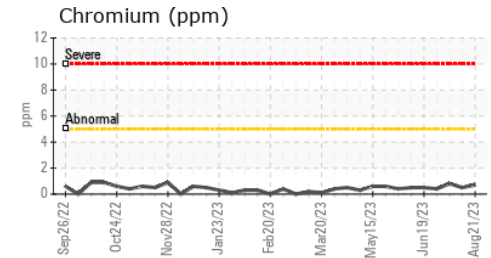
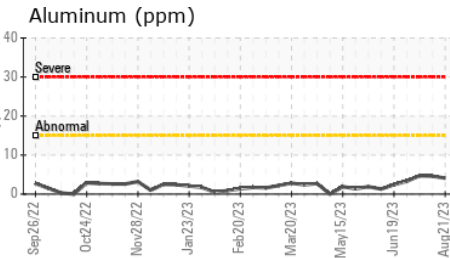
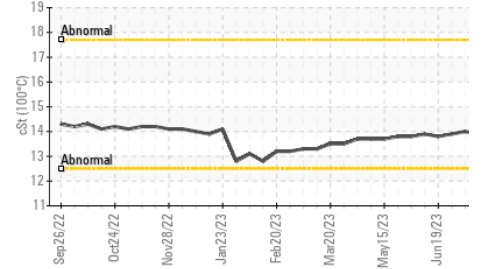
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.0	13.9	14.0

GRAPHS

Base Number



Viscosity @ 100°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0835681 **Received** : 22 Aug 2023
Lab Number : 05931659 **Diagnosed** : 24 Aug 2023
Unique Number : 10616930 **Diagnostician** : Don Baldrige
Test Package : MOB 2

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 ALPHARETTA, GA
 US 30005
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 ryan.ingalls@cubedistrictenergy.com
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 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)